

ABSTRACT OF THE DISCLOSURE

A planar induction sensor for sensing of security features of documents having changing magnetic and (or) conducting properties is of a multilayer printed circuit board design. The sensor comprises a planar current transformer with a spiral-type primary coils and one or several turns of secondary coil in an adjacent layer of the printed circuit board. The secondary coil of the current transformer is connected to an operating coil, which is situated at a sensing edge of the sensor. The operating coil can be formed by external wires or can be incorporated in the circuit board of the current transformer. When a security element, made from the magnetic or conductive material moves past the sensing edge of the sensor, a change in inductance of the induction sensor occurs. In a preferred embodiment, two induction sensors with individual associated electronic circuits were located on opposite sides of validator channel. Analysis of both signals from the sensors allows correction of the signal to reduce variation caused by changing distance of the security document from each sensor.